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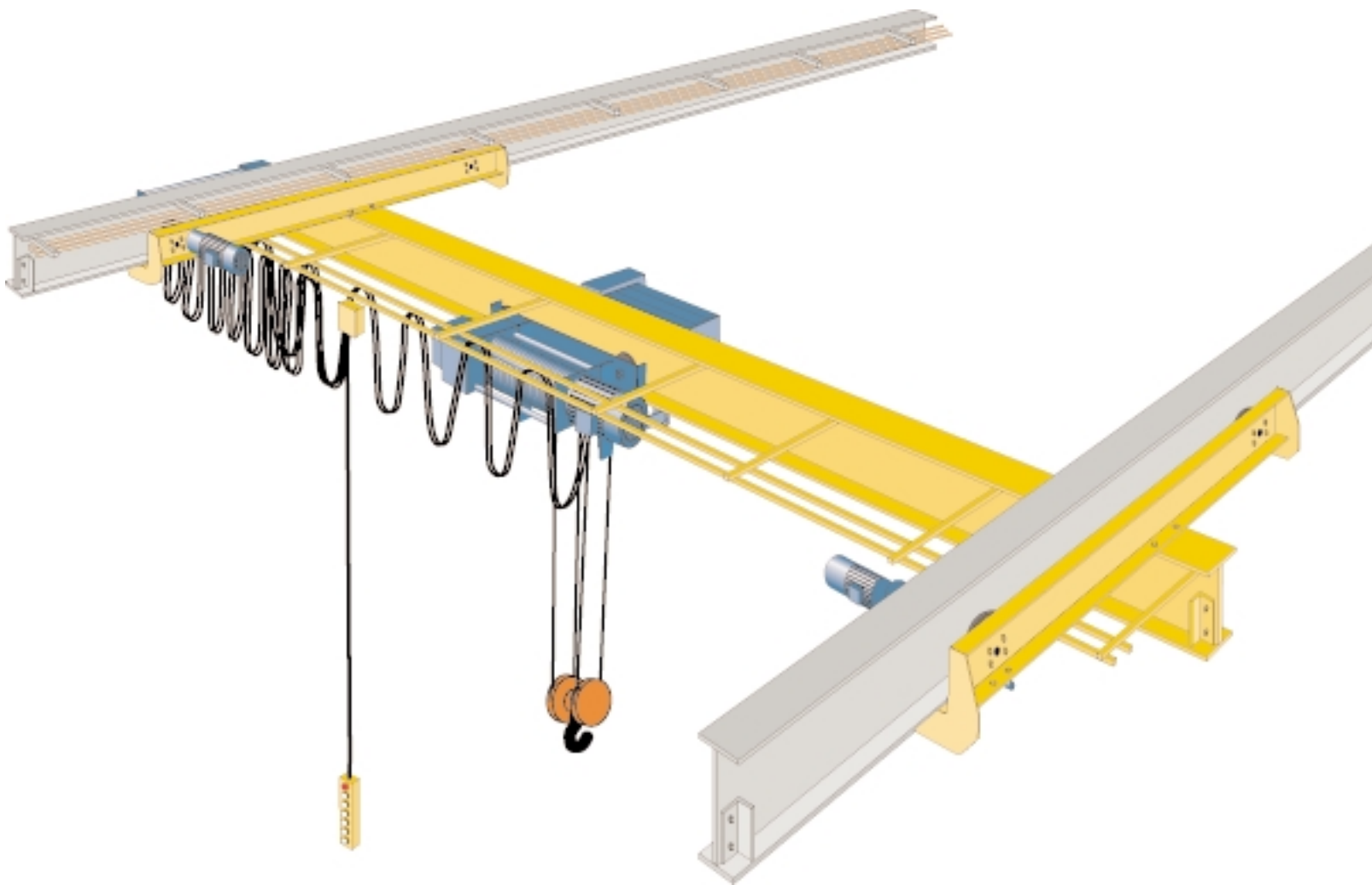
**TOTAL CRANE SYSTEMS**



MANUFACTURERS OF OVERHEAD CRANES AND HOISTS

# Under Running, Single Girder Overhead Cranes

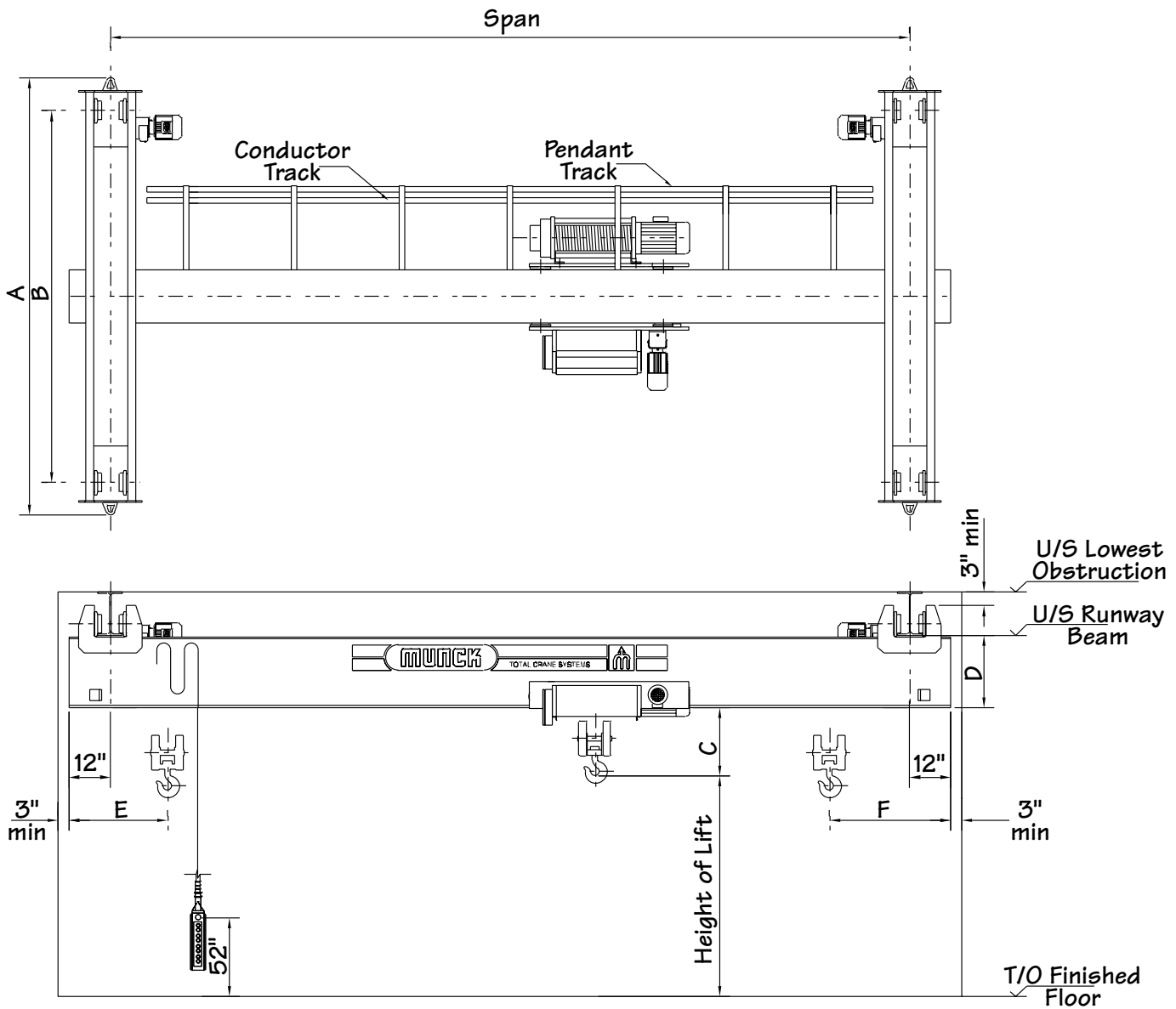
## Engineering & Design Data





### Crane Reference Diagram

All data may be referenced to the following crane diagram. Travel speeds are nominal and may vary  $\pm 10\%$ . Other travel speeds are available on request. Dimensions E & F are given at high hook and are measured from the end of the bridge girder to the centerline of the hoist hook and do not take into consideration the downshop conductor system.



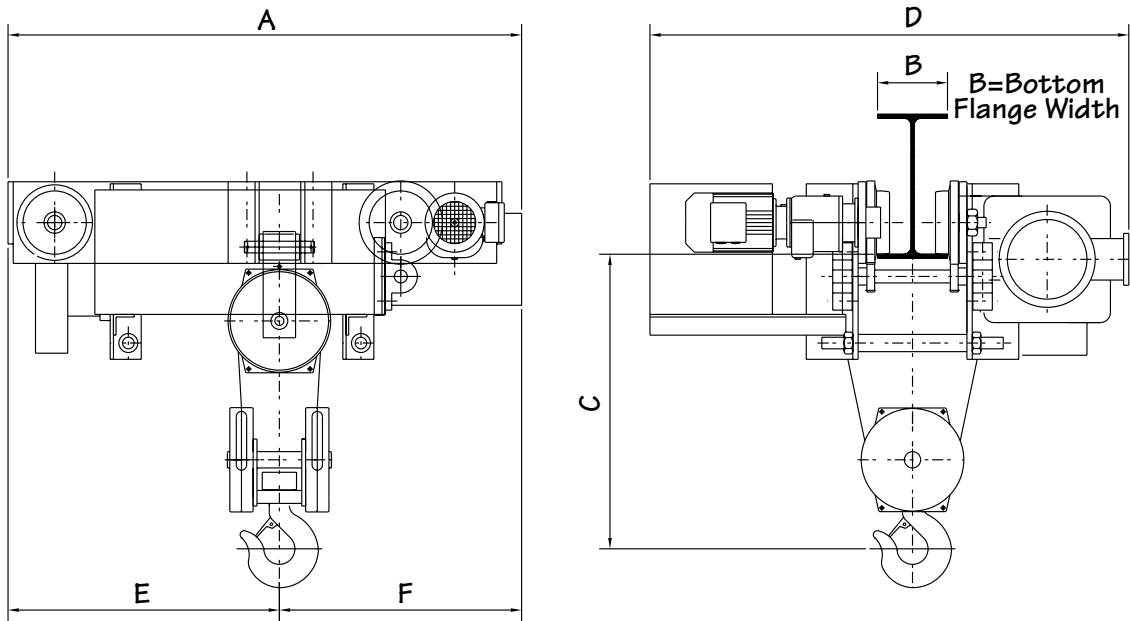
Munck Cranes Inc. assumes no responsibility for, but not limited to, any events or damages which occur as a result of the use of any data contained in this brochure. It should be noted that these figures are supplied to give a general understanding of the specifications relating to any particular capacity of under running, single girder, overhead crane and should not be taken as a basis for construction of any kind. All calculations for actual work to be performed should be done so only by a recognized professional in the industry and only after the unique situations and circumstances to the particular job or job site are considered.

HOIST DATA							CRANE DATA						
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	E	F	Hoist Speed (ft./min.)	SPAN (ft.)	A	B	D (in.)	C (in.)	Crane Weight Excluding Hoist (lbs.)	Maximum Static Wheel Load (lbs.)
1	3101-1223 3101-2223 3101-3223 3101-4223 3101-5223	46 66 82 112 140	725 785 835 930 995	2'-2" 2'-9" 3'-3" 4'-1" 4'-11"	1'-11" 1'-11" 1'-11" 1'-11" 1'-11"	Single Speed: 32  Two Speed: 32 & 8	-20	6'-4"	4'-6"	12	20	760	1750
							21-25	6'-4"	4'-6"	14	20	1115	1840
							26-30	6'-10"	5'-0"	14	20	1845	2020
							31-35	8'-6"	6'-8"	15	20	2445	2170
							36-40	8'-6"	6'-8"	15	20	2885	2280
							41-45	11'-0"	9'-2"	18	24	3530	2445
							46-50	11'-0"	9'-2"	18	28	3970	2555
							51-55	11'-0"	9'-2"	18	28	4275	2630
							56-60	12'-4"	10'-6"	22	28	4940	2795
							61-65	12'-4"	10'-6"	26	32	7015	3315
							66-70	12'-4"	10'-6"	26	32	7470	3430
							71-75	14'-10"	13'-0"	26	32	8170	3605
							76-80	14'-10"	13'-0"	26	32	8625	3715
							81-85	14'-10"	13'-0"	26	32	9420	3915
86-90	17'-4"	15'-6"	30	36	13610	4965							
91-95	17'-4"	15'-6"	30	36	14275	5130							
96-100	17'-4"	15'-6"	30	36	14940	5295							
3	3101-1423 3101-2423 3101-3423 3101-4423 3101-5423	23 33 41 56 70	750 810 860 955 1020	2'-2" 2'-9" 3'-3" 4'-1" 4'-11"	2'-0" 2'-0" 2'-0" 2'-0" 2'-0"	Single Speed: 16  Two Speed: 16 & 4	-20	6'-10"	5'-0"	13	17	1445	4185
							21-25	6'-10"	5'-0"	15	17	1845	4285
							26-30	6'-10"	5'-0"	18	17	2304	4400
							31-35	8'-6"	6'-8"	18	17	3065	4590
							36-40	8'-6"	6'-8"	20	17	3765	4765
							41-45	11'-0"	9'-2"	22	27	3773	4765
							46-50	11'-0"	9'-2"	26	27	4375	4915
							51-55	11'-0"	9'-2"	26	27	4720	5005
							56-60	12'-4"	10'-6"	26	27	5441	5185
							61-65	12'-4"	10'-6"	26	31	7431	5680
							66-70	12'-4"	10'-6"	26	31	7903	5800
							71-75	14'-10"	13'-0"	26	31	9285	6145
							76-80	14'-10"	13'-0"	30	31	10250	6385
							81-85	14'-10"	13'-0"	30	31	11036	6580
86-90	17'-4"	15'-6"	30	35	15838	7780							
91-95	17'-4"	15'-6"	34	35	16733	8005							
96-100	17'-4"	15'-6"	34	35	17995	8320							
5	3111-1423 3111-2423 3111-3423 3111-4423 3111-5423	21 29 37 50 63	785 840 890 990 1055	2'-2" 2'-9" 3'-3" 4'-1" 4'-11"	2'-3" 2'-3" 2'-3" 2'-3" 2'-3"	Single Speed: 16  Two Speed: 16 & 4	-20	8'-6"	6'-8"	15	17	2040	6635
							21-25	8'-6"	6'-8"	18	17	2612	6780
							26-30	8'-6"	6'-8"	20	17	3251	6940
							31-35	8'-6"	6'-8"	20	17	4190	7175
							36-40	8'-6"	6'-8"	23	22	5096	7400
							41-45	11'-0"	9'-2"	22	27	4785	7320
							46-50	11'-0"	9'-2"	26	27	5440	7485
							51-55	11'-0"	9'-2"	26	27	5857	7590
							56-60	12'-4"	10'-6"	30	27	7275	7945
							61-65	12'-4"	10'-6"	30	31	8644	8285
							66-70	12'-4"	10'-6"	30	31	9182	8420
							71-75	14'-10"	13'-0"	30	31	10775	8820
							76-80	14'-10"	13'-0"	34	31	12380	9220
							81-85	14'-10"	13'-0"	34	31	12995	9375
86-90	17'-4"	15'-6"	34	35	16477	10245							
91-95	17'-4"	15'-6"	34	35	17844	10585							
96-100	17'-4"	15'-6"	34	35	19055	10890							
7.5	2822-1423 2822-2423 2822-3423 2822-4423	20 26 36 50	1345 1390 1525 1690	3'-0" 3'-5" 4'-5" 5'-11"	3'-0" 3'-0" 3'-0" 3'-0"	Single Speed: 16  Two Speed: 16 & 5	-20	8'-6"	6'-8"	23	20	2600	9655
							21-25	8'-6"	6'-8"	23	20	3465	9870
							26-30	8'-6"	6'-8"	23	20	4251	10070
							31-35	8'-6"	6'-8"	23	20	5232	10315
							36-40	8'-6"	6'-8"	26	24	6256	10570
							41-45	11'-0"	9'-2"	26	28	6082	10525
							46-50	11'-0"	9'-2"	30	28	7115	10785
							51-55	11'-0"	9'-2"	30	28	7658	10920
							56-60	12'-4"	10'-6"	34	28	9640	11415
							61-65	12'-4"	10'-6"	34	32	11439	11865
							66-70	12'-4"	10'-6"	34	32	12138	12040
							71-75	14'-10"	13'-0"	34	32	13333	12340
							76-80	14'-10"	13'-0"	38	32	15280	12825
							81-85	14'-10"	13'-0"	38	32	16060	13020
86-90	17'-4"	15'-6"	38	36	19596	13905							
91-95	17'-4"	15'-6"	38	36	20485	14125							
96-100	17'-4"	15'-6"	39	36	22645	14665							



HOIST DATA						CRANE DATA								
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	E	F	Hoist Speed (ft./min.)	SPAN (ft.)	A	B	D (in.)	C (in.)	Crane Weight Excluding Hoist (lbs.)	Maximum Static Wheel Load (lbs.)	
10	2831-1423 2831-2423 2831-3423 2831-4423	25 34 48 67	1855 2040 2175 2515	3'-0" 3'-10" 5'-4" 6'-6"	3'-5" 3'-5" 3'-5" 3'-5"	Single Speed: 16	-20	8'-6"	6'-8"	23	28		3190	13015
							21-25	8'-6"	6'-8"	23	28		4123	13250
							26-30	8'-6"	6'-8"	23	28		4941	13455
							31-35	8'-6"	6'-8"	24	28		5972	13710
							36-40	8'-6"	6'-8"	26	31		7566	14110
							41-45	11'-0"	9'-2"	27	31		7158	14005
							46-50	11'-0"	9'-2"	27	31		8045	14230
							51-55	11'-0"	9'-2"	27	31		9116	14495
	Two Speed: 16 & 5	56-60	12'-4"	10'-6"	31	31		10247	14780					
		61-65	12'-4"	10'-6"	31	35		11978	15210					
		66-70	12'-4"	10'-6"	31	35		13307	15545					
		71-75	14'-10"	13'-0"	35	35		16115	16245					
		76-80	14'-10"	13'-0"	35	35		17143	16505					
		81-85	14'-10"	13'-0"	35	35		18600	16870					
		86-90	17'-4"	15'-6"	38	39		22588	17865					
		91-95	17'-4"	15'-6"	39	39		23810	18170					
96-100	17'-4"	15'-6"	42	39		25550	18605							
12.5	2841-1423 2841-2423 2841-3423 2841-5423	26 39 63 82	3340 3770 4190 4500	3'-0" 3'-10" 5'-4" 6'-6"	3'-5" 3'-5" 3'-5" 3'-5"	Single Speed: 16	-20	8'-6"	6'-8"	19	37		3380	16900
							21-25	8'-6"	6'-8"	22	37		3985	17055
							26-30	8'-6"	6'-8"	22	37		4575	17200
							31-35	8'-6"	6'-8"	27	37		5484	17430
							36-40	8'-6"	6'-8"	27	35		6574	17700
							41-45	11'-0"	9'-2"	27	35		7895	18030
							46-50	11'-0"	9'-2"	31	35		8765	18250
							51-55	11'-0"	9'-2"	31	35		10007	18560
	Two Speed: 16 & 5	56-60	12'-4"	10'-6"	35	35		12078	19075					
		61-65	12'-4"	10'-6"	35	34		14480	19675					
		66-70	12'-4"	10'-6"	35	34		15487	19930					
		71-75	14'-10"	13'-0"	35	34		17888	20530					
		76-80	14'-10"	13'-0"	39	34		18992	20805					
		81-85	14'-10"	13'-0"	42	34		20713	21235					
		86-90	17'-4"	15'-6"	42	37		24992	22305					
		91-95	17'-4"	15'-6"	46	37		26975	22800					
96-100	17'-4"	15'-6"	46	37		29330	23390							
15	2841-1423 2841-2423 2841-3423 2841-5423	26 39 63 82	3340 3770 4190 4500	3'-5" 4'-3" 5'-9" 6'-11"	3'-10" 3'-10" 3'-10" 3'-10"	Single Speed: 16	-20	8'-6"	6'-8"	23	35		3554	19745
							21-25	8'-6"	6'-8"	23	35		4495	19980
							26-30	8'-6"	6'-8"	26	35		5193	20155
							31-35	8'-6"	6'-8"	30	35		6216	20410
							36-40	8'-6"	6'-8"	34	35		7370	20700
							41-45	11'-0"	9'-2"	34	34		9335	21190
							46-50	11'-0"	9'-2"	38	34		10810	21560
							51-55	11'-0"	9'-2"	38	34		12020	21860
	Two Speed: 16 & 4	56-60	12'-4"	10'-6"	38	37		14922	22590					
		61-65	12'-4"	10'-6"	39	37		16710	23035					
		66-70	12'-4"	10'-6"	39	37		18700	23530					
		71-75	14'-10"	13'-0"	39	37		20340	23940					
		76-80	14'-10"	13'-0"	43	37		23865	24825					
		81-85	14'-10"	13'-0"	43	37		25115	25135					
		86-90	17'-4"	15'-6"	43	37		27557	25745					
		91-95	17'-4"	15'-6"	47	37		29882	26330					
96-100	17'-4"	15'-6"	47	37		32240	26915							

## Trolley Hoist Reference Diagram



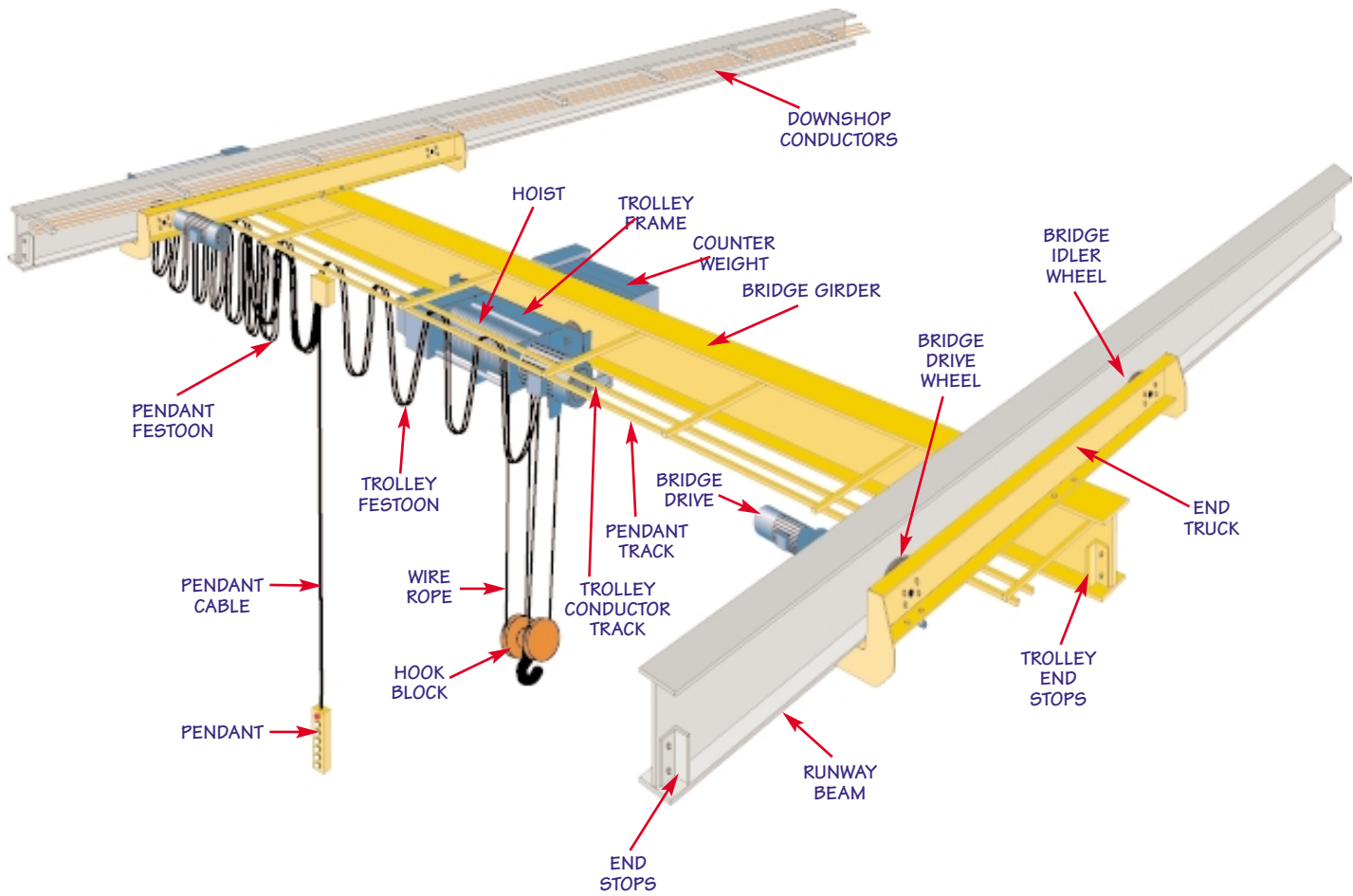
MONORAIL TROLLEY DATA													
Crane Capacity (Tonnes)	Hoist Model	Available Lift Height (ft.)	Trolley Hoist Weight (lbs.)	Hoist Speed (ft./min.)	A	C					D	E	F
						B =< 8"	B =< 12"	B =< 16"	B =< 20"	B =< 24"			
1	3101-1223	46	725		3'-10"							2'-1"	1'-9"
	3101-2223	66	785	32	4'-5"							2'-8"	1'-9"
	3101-3223	82	835	or	4'-11"	2'-0"	2'-0"	2'-4"	2'-9"	3'-2"	B + 3'-0"	3'-2"	1'-9"
	3101-4223	112	930	32 & 8	5'-9"							4'-0"	1'-9"
	3101-5223	140	995		6'-7"							4'-10"	1'-9"
3	3101-1423	23	750		3'-10"							1'-11"	1'-9"
	3101-2423	33	810	16	4'-5"							2'-6"	1'-9"
	3101-3423	41	860	or	4'-11"	1'-9"	2'-2"	2'-6"	3'-0"	3'-5"	B + 3'-0"	3'-0"	1'-9"
	3101-4423	56	955	16 & 4	5'-9"							3'-10"	1'-9"
	3101-5423	70	1020		6'-7"							4'-8"	1'-9"
5	3111-1423	21	785		3'-11"							1'-10"	2'-1"
	3111-2423	29	840	16	4'-6"							2'-5"	2'-1"
	3111-3423	37	890	or	4'-11"	2'-1"	2'-1"	2'-5"	2'-10"	3'-3"	B + 3'-4"	2'-11"	2'-1"
	3111-4423	50	990	16 & 4	5'-10"							3'-9"	2'-1"
	3111-5423	63	1055		6'-8"							4'-7"	2'-1"
7.5	2822-1423	20	1345		4'-6"							2'-3"	2'-3"
	2822-2423	26	1390	16	5'-3"	2'-1"	2'-1"	2'-5"	2'-10"	3'-3"	B + 3'-8"	2'-9"	2'-3"
	2822-3423	36	1525	or	5'-11"							3'-6"	2'-3"
	2822-4423	50	1690	16 & 4	6'-11"							4'-6"	2'-3"
10	2831-1423	25	1855		5'-2"							2'-8"	2'-6"
	2831-2423	34	2040	16	5'-10"	2'-7"	2'-7"	2'-11"	3'-4"	3'-9"	B + 4'-1"	3'-5"	2'-6"
	2831-3423	48	2175	or	6'-10"							4'-5"	2'-6"
	2831-4423	67	2515	16 & 4	8'-6"							5'-9"	2'-6"
12.5	2841-1423	26	3340		6'-1"							2'-9"	3'-4"
	2841-2423	39	3770	16	6'-11"	N/A	3'-0"	3'-0"	3'-6"	4'-0"	B + 4'-7"	3'-6"	3'-4"
	2841-3423	63	4190	or	8'-4"							5'-0"	3'-4"
	2841-5423	82	4500	16 & 4	9'-7"							6'-3"	3'-4"
15	2841-1423	26	3340		6'-1"							2'-9"	3'-4"
	2841-2423	39	3770	16	6'-11"	N/A	3'-0"	3'-0"	3'-6"	4'-0"	B + 4'-7"	3'-6"	3'-4"
	2841-3423	63	4190	or	8'-4"							5'-0"	3'-4"
	2841-5423	82	4500	16 & 4	9'-7"							6'-3"	3'-4"

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# Under Running, Single Girder Overhead Cranes

## Crane Component Diagram



## Technical Description

- **MUNCK CRANES INC.** is recognized as a quality manufacturer of wire rope hoists and overhead traveling cranes.
- **MUNCK** cranes are in use in a wide range of lifting applications from the lightest duty to severe industrial applications.
- The New Generation of Heavy Industrial Cranes from **MUNCK** is a result of over 75 years of experience and a total devotion to this market.
- Utilizing the latest technology, the **MUNCK** line of Heavy Duty Electric Wire Rope Hoists and Cranes are manufactured to provide a high performance lifting system.
- The **MUNCK** product provides reliable service in more than 60 countries world wide.
- The **MUNCK** crane is a heavy duty, low maintenance crane. Its rugged construction and space saving design provide maximum utilization of available area.

### STEEL CONSTRUCTION

- The bridge girder of every **MUNCK** crane is designed to the current CMAA specifications and can be engineered to meet other local codes and regulations.
- Both rolled structural shapes and welded plate box girder designs are used depending on design requirements.
- Box girders are fabricated from 44W steel.

### END TRUCKS

- The crane end trucks are manufactured from structural sections and are jig assembled to ensure alignment of bearings and axles.
- Dual motor bridge drives are standard. Other drive types are available upon request.
- Bridge to End Truck connections are bolted.
- Bridge wheels are flanged with anti-friction bearings.
- Rail sweeps and rubber bumpers are standard on all end trucks.

### HOISTING MACHINERY

- The hoisting machinery consists of a **MUNCK** heavy duty industrial type standard wire rope hoist unit mounted on a low headroom type trolley.
- Motors are totally enclosed fan cooled, hoist duty with Class "F" insulation.
- Gears are precision machined from alloy steel and induction hardened. All gearing is enclosed in a rugged steel housing and is oil splash lubricated.
- Steel wire rope drums are precision machined.
- Rope drums are available in both single & double grooved configurations.
- Hoists are equipped with rope guides to prevent over lapping of the rope on the drum and to extend rope life.
- Upper and lower hoisting limit switches are standard equipment.
- The trolley is fabricated from structural shapes and plates to suit the application.

### MOTORS

- All motors are specifically designed for hoist and crane duty.
- All motors are totally enclosed fan cooled with Class "F" insulation.

### BRAKES

- All trolley and bridge drive motors have disc brakes as standard equipment.
- All hoists have two braking systems, one control brake and one holding brake.

### CONTROLS

- Each crane is controlled from a push-button station suspended from a track allowing the operator to remain clear of the load during lifting and traveling.
- Other types of controls such as radio, infrared and cab controls are available.
- Contactors, fuses, transformers and other associated equipment are mounted in electrical cabinets to suit the applicable environment.
- All cranes are equipped with an emergency stop button that operates a mainline contactor shutting off the power to the crane.

### BRIDGE ELECTRIFICATION

- Bridge electrification is provided via a flat cable festoon system suspended from a track as standard equipment.

### SURFACE TREATMENT

- The hoist is finished in enamel paint.
- The crane steel structure is thoroughly wire brushed and finished with anti-corrosion paint.

### OPTIONAL FEATURES

The following features can be supplied:

- Overload Switch
- Power Circuit Limit Switch
- Rotation Warning Beacon
- Anti-Collision Equipment
- Runway Electrification
- Travel Limits for Bridge & Trolley
- Weighing Equipment
- Variable Speed Control
- Remote Control
- Bridge Lights
- Warning Horn or Bell

Other options are available on request.

### RUNWAY SYSTEMS

- Custom designed to suit many applications as part of a "**Total Crane System**" package.

## **Munck Cranes Inc.**

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